

**REMARKS/ARGUMENTS**

The Examiner is to be thanked for the detailed examination explanation of the rejections. Claims 65, 66, 68, 70, 71, and 74-85 stand rejected under 35 U.S.C. §101 as nonstatutory subject matter because they have been found not to recite explicitly that they are directed to producing a useful, concrete, and tangible result in accordance with current Patent Office guidelines. There is no outstanding rejection based on the merits of the invention.

The evident current understanding of the Patent Office is that the transformation of data is not a "physical transformation" that produces such a result. By this amendment, claims 75, 79 and 81 have been canceled, and claims 65, 66, 68, 70, 74, 76, 77, 78, 80, 82, 83, 84 and 85 have been amended. In particular, the noted claims have been amended to be more consistent with the current understanding of statutory subject matter. Each now recites, in one form or another, storing said reference spectrum including said position value in memory for use in a process for determining the composition of the test sample.

Claims 74 and 78 are *Beauregard* claims to a tangible computer medium, a claim form specifically sanctioned by that case. They have also been amended to specifically state that the computer readable medium enables the output of tangible results to an output apparatus. It is respectfully submitted that the claims now satisfy the statutory requirement as currently interpreted by the Patent Office.

Moreover, even without the amendments to the claims, it is submitted that they are directed to producing a useful, concrete, and tangible result within the meaning of the statute. The Examiner has stated that the result is merely "producing a position value," neglecting to note that the preamble of the claims indicates that the subject matter is a computer implemented process for producing a representation of a reference spectrum of a hypothetical solution, or an apparatus or a medium. In other words, the result of practicing the claimed invention is the representation of a spectrum of a liquid solution. In the context of the disclosure, spectra are represented by peak position values and peak magnitude values. The claims are not particularly concerned about peak magnitude values but rather with the producing a position value for a peak in a particular reference spectrum in order to make the spectrum be representative of what the

spectrum would be if it had been derived at the same pH as that of the test sample of liquid solution. In other words, the reference spectrum is transformed from one representation to another by changing peak positions according to the factors indicated in the claims. There is in fact a physical transformation in that the peak positions of a spectrum are shifted, with the tangible result being a representation of a reference spectrum that can be used in combination with other reference spectra produced in the same way to produce a composite reference spectrum representing the composition of the test sample. The representation of the reference spectrum thus improves upon the accuracy of determining the composition of components of a test sample. It is submitted that this is truly a useful, concrete and tangible result, as it improves the accuracy of heretofore known measurement systems.

It is therefore respectfully submitted that all claims have addressed and overcome the rejection under 35 U.S.C. §101.

**CONCLUSION**

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (650) 326-2400.

Respectfully submitted,

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